# Weather Company Data - Core | Site-Based Observations - v1

Domain Portfolio: Observations | Domain: Current Conditions | API Name: Site-Based Observations - v1

**Geography:** Global **Attribution Required:** NO **Attribution Requirements:** N/A

## Overview

Current Conditions are sourced from physical site-based observation stations. This API returns the latest weather observation for the location supplied to include current temperatures, winds, pressure and other observed weather information. Weather observations are reported from physical devices deployed worldwide (weather data collected from METAR, SYNOP, BUOY, CMAN devices).

**Current Condition:** Access to retained site-based data will be distributed when requested in Current Conditions data feeds. Observations per station within a 24 hour period varies due to station operation requirements (i.e. modified operating hours, number of observations recorded per hour, maintenance issues, etc). The recent observations data will be continuously updated and replaced with a first-in / first-out methodology, (rotating data with newest observation and moving the oldest observations to the archive storage) based on date/time stamping of the observations. The amount of data retained and available from any given station may be more than a single observation or more than 24 individual observation reports for any given station id. The number of observations is determined by the type of observation it is, i.e. NWS, etc.

## HTTP Headers and Data Lifetime - Caching and Expiration

For details on appropriate header values as well as caching and expiration definitions, please see **The Weather Company Data | API Common Usage Guide**.

## Translated Fields:

This TWC API handles the translation of phrases. However, when formatting a request URL a valid language must be passed along (see the language code table for the supported codes).

- pressure_desc
- uv_desc
- wx_phrase
-

## Unit of Measure Requirement

The unit of measure for the response. The following values are supported:

- e = English units
- m = Metric units
- h = Hybrid units (UK)

## URL Construction

| **Atomic API URL Examples:** | **Aggregate Product Name** | v2obs |
|---|---|---|
| **Request by Geocode (Latitude & Longitude): Required Parameters:** geocode, language, format, units, apiKey=**yourApiKey** | | |
| https://api.weather.com/v1/geocode/34.063/-84.217/observations.json?language=en-US&units=e&apiKey=yourApiKey | | |
| **Request by Postal Code: Required Parameters:** language, format, units, postal code apiKey=**yourApiKey**<br>The Postal Code has a TWC proprietary location type (4) with the following format: location/<postal code>:<location type>:<country code> | | |
| https://api.weather.com/v1/location/30075:4:US/observations.json?language=en-US&units=e&apiKey=yourApiKey | | |

## Data Elements & Definitions

Note: Field names are sorted alphabetically in the table below for presentation purposes. The table below does not represent the sort order of the API response.

| Field Name | Description | Type | Range | Sample | Nulls Allowed |
|---|---|---|---|---|---|
| blunt_phrase | Weather description qualifier short phrase | string | | Warmer than yesterday. | Y |
| class | data identifier | string | default | observation | N |
| clds | Cloud cover description code | string | SKC, CLR, SCT, FEW, BKN, OVC | SKC | Y |
| day_ind | Daytime or nighttime of the local apparent time of the location | string | D = Day, N = Night, X = Missing (for extreme northern and southern hemisphere | D | Y |
| dewpt | The temperature which air must be cooled at constant pressure to reach saturation. The Dew Point is also an indirect measure of the humidity of the air. The Dew Point will never exceed the Temperature. When the Dew Point and Temperature are equal, clouds or fog will typically form. The closer the values of Temperature and Dew Point, the higher the relative humidity. | integer | -80 to 100 (°F) or<br>-62 to 37 (°C) | 60 | Y |
| expire_time_gmt | Expiration time in UNIX seconds | epoch | | 1369252800 | N |
| feels_like | An apparent temperature. It represents what the air temperature “feels like” on exposed human skin due to the combined effect of the wind chill or heat index. | integer | -140 to 140 | 60 | Y |
| gust | Wind gust speed.<br>This data field contains information about sudden and temporary variations of the average Wind Speed. The report always shows the maximum wind gust speed recorded during the observation period. It is a required display field if Wind Speed is shown. The speed of the gust can be expressed in miles per hour or kilometers per hour. | integer | | 35 | Y |
| heat_index | An apparent temperature. It represents what the air temperature “feels like” on exposed human skin due to the combined effect of warm temperatures and high humidity.<br>When the temperature is 70°F or higher, the Feels Like value represents the computed Heat Index.<br>For temperatures between 40°F and 70°F, the Feels Like value and Temperature are the same, regardless of wind speed and humidity, so use the Temperature value. | integer | | 70 | Y |
| icon_extd | The four-digit number to represent the observed weather conditions.<br>Refer to the Icon Code, Weather Phrases and Images document | integer | | 5500 | Y |
| key | Primary data field to group or access data | string | same as observation ID | KATL | N |
| max_temp | High temperature in the last 24 hours | integer | -140 to 140 | 81 | Y |
| min_temp | Low temperature in the last 24 hours | integer | -140 to 140 | 48 | Y |
| obs_id | Observation station ID | string | | KATL | N |
| obs_name | Observation station name | string | | Hartsfield-Jackson Airport | N |
| precip_hrly | Precipitation for the last hour | decimal | 0.00 to 99.99 | 0.5 | Y |
| precip_total | Precipitation amount in the last rolling 24 hour period | decimal | 0.00 to 99.99 | 0.3 | Y |
| pressure | Barometric pressure is the pressure exerted by the atmosphere at the earth's surface, due to the weight of the air. This value is read directly from an instrument called a mercury barometer and its units are expressed in millibars (equivalent to HectoPascals). | double | | 30.06 | Y |
| pressure_desc | A phrase describing the change in the barometric pressure reading over the last hour. | string | Steady,<br>Rising,<br>Rising Rapidly,<br>Falling, | Steady | Y |

| | | | | | |
|---|---|---|---|---|---|
| | | | Falling Rapidly | | |
| pressure_tend | The change in the barometric pressure reading over the last hour expressed as an integer. | integer | 0 = Steady<br>1 = Rising or Rising Rapidly<br>2 = Falling or Falling Rapidly | 0 | Y |
| qualifier | Weather description qualifier code | string | | QQ0063 | Y |
| qualifier_svrty | Weather description qualifier severity | string | 1 (low) to 6 (high) | 1 | Y |
| rh | The relative humidity of the air, which is defined as the ratio of the amount of water vapor in the air to the amount of vapor required to bring the air to saturation at a constant temperature. Relative humidity is always expressed as a percentage. | integer | 0 to 100 | 91 | Y |
| snow_hrly | Snow increasing rapidly in inches or centimeters per hour depending on whether or not the snowfall is reported by METAR or TECCI (synthetic observations). METAR snow accumulation for the last hour is in inches and TECCI is in centimeters. | decimal | 0 to 15 | 1 | Y |
| temp | The temperature of the air, at the time of the observation, measured by a thermometer 1.5 meters (4.5 feet) above the ground that is shaded from the other elements. | integer | -140 to 140 | 62 | Y |
| terse_phrase | Weather description qualifier terse phrase | string | | Dangerous wind chills. Limit outdoor exposure. | Y |
| uv_desc | Ultraviolet index description | string | Extreme, Very High, High, Low, Minimal, Moderate, No Report, Not Available | High | Y |
| uv_index | Ultraviolet index | integer | 0 to 11 and 999 | 7 | Y |
| valid_time_gmt | Valid time of observation as a Unix epoch value (seconds since start of 1970, UTC) | epoch | | 1369252800 | N |
| vis | The horizontal visibility at the observation point. Visibilities can be reported as fractional values particularly when visibility is less than 2 miles. Visibilities greater than 10 statute miles(16.1 kilometers) which are considered “unlimited” are reported as “999” in your feed. You can also find visibility values that equal zero. This occurrence is not wrong. Dense fogs and heavy snows can produce values near zero. Fog, smoke, heavy rain and other weather phenomena can reduce visibility to near zero miles or kilometers. | double | 0 to 999 or null;<br>For greater than 1 = no decimal.<br>For less than 1 = 2 (Metric) & 2 (Imperial) decimal places. | 10, 0.25 (Metric)<br>0.25 (Imperial) | Y |
| wc | An apparent temperature. It represents what the air temperature “feels like” on exposed human skin due to the combined effect of the cold temperatures and wind speed.<br>When the temperature is 61°F or lower the Feels Like value represents the computed Wind Chill so display the Wind Chill value.<br>For temperatures between 61°F and 75°F, the Feels Like value and Temperature are the same, regardless of wind speed and humidity, so display the Temperature value. | integer | Use only if temperature is below 40 degrees Fahrenheit OR below 5 degrees Celsius | -25 | Y |
| wdir | The direction from which the wind blows expressed in degrees. The magnetic direction varies from 1 to 360 degrees, where 360° indicates the North, 90° the East, 180° the South, 270° the West, and so forth. A ‘null’ value represents no determinable wind direction. | integer | 1 to 360 | 45 | Y |
| wdir_cardinal | This field contains the cardinal direction from which the wind blows in an abbreviated form. Wind directions are always expressed as “from whence the wind blows” meaning that a North wind blows from North to South. If you face North in a North wind, the wind is at your face. Face southward and the North wind is at your back. | string | N , NNE , NE, ENE, E, ESE, SE, SSE, S, SSW, SW, WSW, W, WNW, NW, NNW, CALM, VAR | ENE | Y |
| wspd | Wind Speed.<br>The wind is treated as a vector; hence, winds must have direction and magnitude (speed). The wind information reported in the hourly current conditions corresponds to a 10-minute average called the sustained wind speed. Sudden or brief variations in the wind speed are known as “wind gusts” and are reported in a separate data field.<br>Wind directions are always expressed as "from whence the wind blows" meaning that a North wind blows from North to South. If you face North in a North wind the wind is at your face. Face southward | integer | | 15 | Y |

| | | | | | |
|---|---|---|---|---|---|
| | and the North wind is at your back. | | | | |
| wx_icon | The two-digit number to represent the observed weather conditions.<br>Refer to the Icon Code, Weather Phrases and Images document | integer | 0 to 48 | 47 | Y |
| wx_phrase | A text description of the observed weather conditions at the reporting station | string | 257 phrases | Mostly sunny | Y |
| water_temp | Water temperature | integer | 25 to 100 | 80 | Y |
| primary_wave_period | Primary wave period | integer | 0-99 | 13 | Y |
| primary_wave_height | Primary wave height | decimal | 0-99.99 | 3.28 | Y |
| primary_swell_period | Primary swell period | integer | 0-99 | 13 | Y |
| primary_swell_height | Primary swell height | decimal | 0-99.99 | 1.64 | Y |
| primary_swell_direction | Primary swell direction | integer | 0 to 359 | 190 | Y |
| secondary_swell_period | Secondary swell period | integer | 0-99 | null | Y |
| secondary_swell_height | Secondary swell height | decimal | 0-99.99 | null | Y |
| secondary_swell_direction | Secondary swell direction | integer | 0 to 359 | null | Y |

## JSON Sample


```
{
   "metadata": {
      "language": "en-US",
      "transaction_id": "1473201321183:-1106734720",
      "version": "1",
      "latitude": 34.06,
      "longitude": -84.21,
      "units": "e",
      "expire_time_gmt": 1473207900,
      "status_code": 200
   },
   "observation": {
      "key": "T72227031",
      "class": "observation",
      "expire_time_gmt": 1473207900,
      "obs_id": "T72227031",
      "obs_name": "Duluth",
      "valid_time_gmt": 1473200700,
      "day_ind": "D",
      "temp": 90,
      "wx_icon": 32,
      "icon_extd": 3200,
      "wx_phrase": "Sunny",
      "pressure_tend": 0,
      "pressure_desc": "Steady",
      "dewPt": 54,
```

```
      "heat_index": 88,
      "rh": 29,
      "pressure": 30.18,
      "vis": 10,
      "wc": 90,
      "wdir": 70,
      "wdir_cardinal": "ENE",
      "gust": null,
      "wspd": 1,
      "max_temp": 92,
      "min_temp": 63,
      "precip_total": 0,
      "precip_hrly": 0,
      "snow_hrly": 0,
      "uv_desc": "Low",
      "feels_like": 88,
      "uv_index": 1,
      "qualifier": "OQ0047",
      "qualifier_svrty": "1",
      "blunt_phrase": "Hot.",
      "terse_phrase": "Hot.",
      "clds": "SKC",
      "water_temp": null,
      "primary_wave_period": null,
      "primary_wave_height": null,
      "primary_swell_period": null,
      "primary_swell_height": null,
      "primary_swell_direction": null,
      "secondary_swell_period": null,
      "secondary_swell_height": null,
      "secondary_swell_direction": null
    }
}
```